

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-21 (Canceled)

22. (New) A process for producing carboxylic acids by oxidation of a hydrocarbon with oxygen or a gas containing oxygen with the formation of esters in a reaction medium, in the presence of a monocarboxylic acid-based solvent and of an oxidation catalyst, comprising the steps of hydrolysing the esters formed by carrying out a treatment of the reaction medium before extraction of the carboxylic acids or a treatment of the organic phase derived from the reaction medium after extraction of the carboxylic acids formed.

23. (New) A process according to Claim 22, wherein the hydrolysis step is carried out by addition to the medium to be treated of a strong acid and maintenance of said medium at a temperature of greater than 50°C, optionally of between 80°C and 200°C.

24. (New) A process according to Claim 23, wherein the strong acid has a pKa of less than or equal to 2.

25. (New) A process according to Claim 24, wherein the strong acid is carried on or attached to an inert material such as a resin.

26. (New) A process according to claim 25, wherein the resin is a sulphonic acid resin.

27. (New) A process according to claim 22, wherein the extraction of the carboxylic acids produced from the reaction medium is carried out by means of separation by settling out.
28. (New) A process according to claim 22, wherein the extraction of the carboxylic acids produced from the reaction medium is obtained by liquid/liquid extraction.
29. (New) A process according to claim 22, wherein the organic phase obtained after extraction of the carboxylic acids and hydrolysis of the esters is recycled at the oxidation step.
30. (New) A process according to claim 22, wherein the organic phase recovered after separation of the diacids formed is subjected to distillation of the compounds having a boiling point less than or equal to that of the alcohol formed during the oxidation step, before the hydrolysis step.
31. (New) A process according to claim 22, wherein the organic phase recovered after separation of the diacids formed is subjected to distillation of the compounds having a boiling point less than or equal to that of the acid solvent used in the oxidation step, before the hydrolysis step.
32. (New) A process according to claim 22, wherein the acids formed during the hydrolysis step are extracted from the medium with a solvent for said acids.
33. (New) A process according to claim 32, wherein the oxidation solvent present in the hydrolysis medium is extracted and purified before recycling at the oxidation step.

34. (New) A process according to claim 32, wherein the acids recovered from the hydrolysis medium are mixed with the diacids extracted from the oxidation medium or in the oxidation medium before extraction of the diacids.
35. (New) A process according to claim 22, wherein the hydrocarbon is a cycloalkane.
36. (New) A process according to claim 35, wherein the cycloalkane is cyclohexane or cyclododecane.
37. (New) A process according to claim 22, wherein the solvent is a monocarboxylic acid having from 1 to 6 carbon atoms, or an acid lipophilic in nature, having from 7 to 20 carbon atoms.
38. (New) A process according to claim 37, wherein the lipophilic acid is hexanoic acid, heptanoic acid, octanoic acid, 2-ethylhexanoic acid, nonanoic acid, decanoic acid, undecanoic acid, dodecanoic acid, stearic acid (octadecanoic acid) and their permethylated derivatives, 2-octadecylsuccinic acid, 3,5-ditert-butylbenzoic acid, 4-tert-butylbenzoic acid, 4-octylbenzoic acid, tert-butyl hydrogen orthophthalate, alkylnaphthenic acid, alkylanthracenic acid, a substituted derivative of phthalic acids, or a fatty diacid.
39. (New) A process according to claim 38, wherein the lipophilic acid is a dimer fatty acid, a naphthenic acid substituted with tert-butyl groups, or an anthracenic acid substituted with tert-butyl groups.
40. (New) A process according to claim 22, wherein the catalyst is a transition metal.

41. (New) A process according to claim 40, wherein the catalyst is based on manganese in combination with a co-catalyst which is cobalt, zirconium, cerium, hafnium or iron.
42. (New) A process according to claim 22, wherein the polycarboxylic acid produced is adipic acid, succinic acid, glutaric acid, dodecanedioic acid or a mixture thereof.